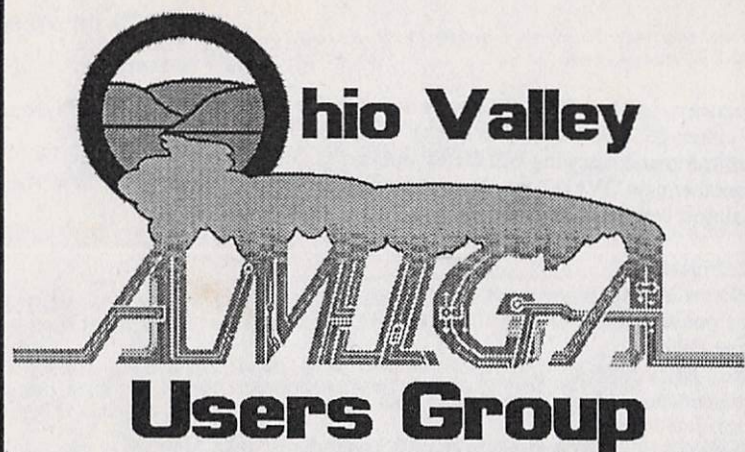




DON MYERS

OHIO VALLEY AMIGA USERS' GROUP

TABLE OF CONTENTS: **APRIL, 1993**

PRESIDENT'S	1
MAR. CLUB DISKS	2
MAR MINUTES	3
GURU - EKSTEN	5
OLDMAN - WEHNER	7+8
REAL TIME VIDEO - EKSTEN	9
EDITOR'S END	13
ANDREA'S ANT	14

~~~~~  
NEXT MEETING: APR. 27th  
Rm 502 RIEVESCHL HALL,  
UC || BEGINNERS AT 6:30

# The President's Palaver

Ed Hoffmann

Thanks to the thesaurus in Final Copy II I have a new title for this column (no, I never heard "palaver" either; go look it up!). (\* It means "BALONEY", which is an undocumented MS DOS command returning Bill Gates' opinion of OS/2!...the editor \*) This being the start of another new OVAUG year; lets start with the announcement of the new officers (one can almost feel the anticipation):

President: Ed Hoffmann

Vice President: Drew Vogel

Secretary: Troy Cooksey

Treasurer: George Gibeau

Technical Advisor: Brick Eksten

Librarian: Scott Bennett

Newsletter Editor: Jeff Johnson

In addition, George Gibeau will continue as the BBS operator (thanks, George!).

Welcome to the new officers! And thanks to all the previous officers for a job well done. Have you thanked an OVAUG officer today?

Since this is a new year, I would like to take an informal poll of the users to find out what OVAUG can do differently. Is there a SIG that should be started? Do we need more or less hardware/software demos? How about games coverage? Expanded newsletter or BBS? Whatever the comment, drop me note on the BBS, give me a call, or talk to me at the next OVAUG meeting. My job is to respond to the members' wants, so let me know.

We have sent in a letter to Commodore to request an Amiga 4000 and 1200 for the ComputerFest show in Dayton, August 28 and 29. This will be at no charge to the club (although I am still checking out the insurance issue) and they even include Federal Express charges. We also will be receiving banners and flyers from them. We plan on providing a big presence at ComputerFest this year, and will start planning next month. If anyone has any ideas, let them be known; these things take a lot of lead time. Remember, this an opportunity to show a lot of computer-literate people what the Amiga is all about; last year 27,500 people showed up, and this year we can expect over 30,000.

We will also write letters to software distributors asking for copies of titles for give away at the show; I am asking for volunteers to do the letter writing.

Lately, there has been a terrific response from OVAUG members showing us what they are doing with their Amigas. I, for one, prefer to see the members projects than more demos, since this really involves the users, and provides a real-life demonstration of a product. Also, you get to know who the members are that have the same interests as yourself, or complementary abilities. I encourage all members to continue to show us what you're doing. Although some may think that no one will be interested, we have a varied group, and besides, someone may have the same interest as you, but unknown to you.

At the next Beginners SIG, I will do a true beginners class. I will start from the bottom up on the Amiga (and computers in general), so all the newest users should be there. Remember, that is at 6:30 PM before the regular meeting, the last Tuesday of the month (before the regular meeting). See you April 27!

## MARCH, 1993 OVAUG CLUB DISKS

These are compiled by Scott Bennett for the benefit of club members. They are available on the BBS, at Expert Services, or at the club meetings. The copy charge is \$1.50 plus blank disk.

### Mar93\_01

ar101.lha  
area\_codes.lzh  
asnchange.lzh  
battlecars.lha  
calcrpn1.lha  
cd\_icons.lzh  
cerca\_11.lha  
chopperrescue.lzh  
compaste.lzh  
5-min\_news\_feb93.lzh  
5-min\_news\_jan93.lzh  
ab20g\_pch.lha  
aeeps.lha  
amisox30.lha

### Mar93\_02

mriconsort.lha  
mrman200.lha  
MultiPrint14.lha  
mung37\_64.lzh  
owner37\_2.lzh  
parbench31.lha  
patch222.lha  
pcx392.lha  
PostView1.1.lha  
prtman11.lha  
pw\_imp.lha  
rotor.lha  
rxser501.lha  
speak\_dosdriver.lha  
starblank3.0.lha  
tmc.lha  
diskcat\_v1.1.lha  
drdongle.lha  
enforcer.lzh  
envprt11.lha  
epu10.lha  
fc\_imp.lha  
fractal-nofpu.lha  
fractal.lha  
hack.lha  
hp4.lha  
hpdj550c.lha  
icogen.lha  
ie3.0.lha  
il\_imp.lha  
intelout.lha  
intel\_outside.jpg  
lyapspc.lha

### Mar93\_03

stacktools.lha  
stest20.lha  
switcher.lha  
s\_dark12.lha  
terrain.lha  
tinyclock2\_0.lha  
toolalias.lha  
totp\_005.lha  
trashicon.lha  
ttxsas.lha  
worm.lha  
x-pand.lha  
pt2.95.lha  
rdprep391.lha  
snoopdos20.lha  
speech2.lzh

### Mar93\_04

viewtek104a.lha  
CGFonts.lha  
IML1.LHA

### Amiga Report online Mag

List of area codes  
Assign wedge  
Game  
CalcRPN v37.302 RPN Calculator  
Icons for workbench  
Find file utility with Intuition interface  
Game  
Cut and paste from anywhere  
News from Genie  
News from Genie  
Ami-Back patch to 2.0g  
Art Expression import for PageStream  
Sound converter handles multiple platforms

### Icon utility program

Document browsing tool  
Tool for printing on both sides of paper  
MungWall 37.64  
Owner 37.2  
Parnet install disk  
Patch for pagestream  
PCX.datatype 39.2  
Postscript viewer  
Pinter manager  
ProWrite import module for PageStream  
Screen blanker  
Rxx serial port driver  
Speak device driver  
Screen blanker

### Program to copy memory faster than with AmigaDOS

REXX disk cataloger  
Analyzes dongles  
All new V37.36  
Envelope printer  
Stacker or XPK like utility  
Final Copu import module for PageStream  
Fractal program  
Fractal program

### Puts icons on workbench to run other programs

Printer Drive for hp4  
printer driver for hp550c

### Quickly create or manipulate large numbers of icons

Icon Editor  
Illustrator import module for PageStream  
Backdrop for WB3.0  
Picture  
Fractal drawing tool

### StackTools 1.0.0 - Stack size management tools

SCSI tester  
Screen manipulator  
Screen blanker like after dark  
AGA terrain creator  
WB clock  
Provides aliases for icon tooltypes  
ImageFX module to pass files to ToasterPaint  
TrashIcon WB2+ appicon Delete files  
TurboText SAS AREXX scripts  
Screen hack  
Intuition file extractor  
ProTracker music player  
HardDrive prep utility

### Show attempts to load libraries, devices and fonts v2.0

Speech toy

### Picture viewer

CGFonts  
Winners from Imagine Mailing list contest

## Minutes of the March 30, 1993 O.V.A.U.G. Meeting

The meeting was called to order at about 8:15 pm by Ed Hoffmann. The attendance was about 45 people.

### New Members

The following members have joined OVAUG in March:

Gary Holz, Matthew Likierman, and the Springfield Illinois Amiga Users Group.  
Welcome to OVAUG!

### OFFICER REPORTS

**-VICE PRESIDENT (Dwight Blubaugh)** No report.

**-SECRETARY (Troy Cooksey)** As of this meeting we have 108 paid members. Membership dues are \$15 for a single membership and \$20 for a family membership. (If you need to pay dues or wish to join, see me at the meetings or call 961-6354 for more information). If you have something for sale or trade, then please give me a written description of the item along with your name and phone number, or you can send it to the club's post office box. Your ad will appear in three issues of the newsletter or, more or less issues, if you let me know that you need more time or that the item has sold. Also note that on your newsletter, your expiration date will be highlighted when your membership is about to expire.

**-LIBRARIAN (Scott Bennett)** The Fred Fish library is currently up to FF840, the CD ROM is up to FF800, the BBS has up to FF750 compressed, and there are four club disks this month. (Note: a variety of books and video tapes are now available for borrowing by club members in good standing. Scott has sign up sheets for those interested).

**-TREASURER (George Gibeau)** The treasury balance is currently \$800.

**-TECHNICAL ADVISOR (Brick Eksten)** The Digital Effects Master Board is now available along with the Implant Board which starts at \$499 not including ROM chips.

**-NEWSLETTER (Jeff Johnson)** Jeff reported that a letter he sent to Byte magazine complimenting them on their coverage of the Amiga was published in the most recent issue. Jeff thanked all of the contributors to last month's issue of the newsletter. Jeff requests that if you have anything; articles, tips, bios on interesting members, etc, then please send them in. Note it does not have to be a full blown article. Anyone published in the newsletter will receive one free Fred Fish copy. Submissions can be made to the club P.O. box, to the club BBS, or to Jeff at the meetings. Also if you would like to see an article on a particular topic then let Jeff know and he will try to find someone to write on it.

**-BBS ADVISOR (George Gibeau)** George reported that the BBS has been much more stable of late. George also requests that you be patient concerning status upgrade as it takes a little bit of time for membership renewals to be processed and get to him. The club's BBS phone number is 241-8817.

### SIG REPORTS

**-BEGINNER'S SIG (Ed Hoffmann)** Ed demoed Amiga DOS 3.0 and the new AGA graphics modes. Ed welcomes any suggestions for meeting topics. Meetings are held in Room 502 Rieveschl Hall at 6:30 pm prior to the monthly OVAUG meeting.

**-C SIG (Mark Peters)** Mark reported that there had been no meetings for the past two months. C SIG discussions are taking place on the OVAUG BBS and monthly meetings are held at Mark's house, 3027 Eden Ave., on the third Thursday of every month. Call Mark at 961-6925 for more information.

**-MULTI MEDIA SIG (Dan Sternklar)** Dan said the SIG would be looking at the new Bars and Pipes upgrade, Super Jam, Hyper Cache, the Montage Character Generator for the Toaster, and the Anim 7 AGA format at the next meeting. Meetings are held at Dan's house, 3325 Bishop St. in Clifton, on the 1st Tuesday of every month (call Dan @ 281-3278 for more info).

**-GRAPHICS SIG (Bob Leibold)** The Graphics SIG is currently putting together Truman Toland's documentary on the Graphics SIG and OVAUG. The next meeting has not been announced, however, upcoming dates will be posted on the OVAUG BBS. This SIG is in conjunction with Cincinnati Community Video. It will focus on developing computer graphics and video which will be aired on Warner Cable Public Access. Training and access to CCV equipment will be provided for SIG participants. Contact

Bob Leibold at 651-4171 for more details.

-AREXX SIG (Richard Hertzberg) Richard reported that he has put programs for controlling SAS mainframes on the BBS. AREXX discussions are taking place on the BBS.

#### OLD BUSINESS

-OVAUG is going to send in the money for a subscription to the Fred Fish collection.

-Ballots for the OVAUG officer elections are available in the March issue of the newsletter. Send completed ballots to the club's P.O. box or turn them in at Expert Services.

-Hamvention will be occurring in April.

#### NEW BUSINESS & DISCUSSION

-Since we are going to get a subscription to the Fred Fish collection we need to raise some extra money, so a motion was made to raise the disk copy cost from \$1.00 to \$1.50 for members and to charge \$3.00 for non members. The motion passed almost unanimously.

#### DEMONSTRATIONS

-Dan Denny demonstrated Art Expressions from Soft Logic. Art Expressions is a structured drawing program. The program includes a variety of standard drawing tools including a Bezier curve feature. It supports AGA modes but may not maintain the aspect ratio. Other features include user defined fill and gradient patterns, morph transitioning between graphical elements, and font to graphic conversion.

-Don Myers showed more material on Nick Dixon, his 1940's styled detective trailer. Don played a video tape of several scenes of actors performing against chroma keyed Deluxe Paint backgrounds. Don also showed some animations he is working on for a Public Access version of Dr. Suess' 'If I Ran the Zoo. More really good stuff from Don.

-Ed Stoehr showed some Journeyman/Playmation animations he and his wife Andrea have done. The animations included an ant and a dancing couple made from geometric shapes by Andrea and a Venus flytrap by Ed.

-Ed Hoffman demoed new features in the latest upgrade of Caligari 24. The new features include a quick render, organic deformation, wireframe preview, time line editing, and hierarchal motion.

-Dan Williams showed his latest production for Cyber Cinema appearing on Storer Cable. The video was a stunning psychedelic image show created with Deluxe Paint and Scala.

-Finally, the latest Commodore multi media video tape was shown.

#### \$\$\$ FOR SALE OR TRADE \$\$\$

---Complete computer package including; Amiga 500 (2.0 & 1.3 chips on switch), 50 meg hard drive w/ SCSI controller, 1084S monitor, external 3 1/2 " drive, Vorec-voice recognition device, Star NX1000 color printer, 2400 baud Zoom modem, power strip, teak disk case, MicroSpeed track ball, and software...\$950 or call for individual piece price...offered by Brett Birdsall (948-8530).

--Amiga 2000, XT-Bridgeboard, 2 40 Meg hard drives, 1084 monitor, Frame Grabber digitizer, 4 Meg RAM, ton-o-software, midi 5-way box, RGB out video box, 2 3 1/2" and 1 5 1/4" floppy drives...\$???...offered by Michael (821-3913).

#### QUESTIONS???...Then contact one of your OVAUG officers!

-President.....Ed Hoffmann.....521-3424

-Vice-president.....Drew Vogel.....581-7002

-Secretary.....Troy Cooksey.....661-0908

-Treasurer.....George Gibeau.....721-1214

-Newsletter Editor.....Jeff Johnson.....651-1199

-Technical Advisor.....Brick Eksten.....BBS #241-8817

-Club Librarian.....Scott Bennett.....371-2603

-BBS Officer.....George Gibeau.....721-1214

-BBS Phone Number (8N1).....241-8817

# THE GURU SPEAKS by Brick Eksten

(\* From the editor: Brick, our new club technical advisor, was asked by the editor for an explanation of RTG. The following is his reply. \*)

RTG (REtargetable Graphics) means...

...an environment that graphically adapts from its lowest common denominator to the limits of your available hardware. This means that if you buy a board and monitor combo that supports 1024 x 1024 graphics then the display (WB and any other adaptable screen) can and will open up at the full resolution. This is true in depth also, if you buy a board that has 24 bit pixels, then all programs that follow the rules will automatically be able to take advantage of all the new colors. This is only the user half of RTG.

The programmer's half is that he can treat all display modes as if they are 24 bits deep and the operating system will take care of mapping the colors. It should also supply a font engine that will scale fonts, and if it is really cool, it should be able to smoothly scale graphics for you. Commodore is well on its way to REAL RTG. There are many features in 2.0 and 3.0 which make this a possible. Future OS's will make it real.

(\* From the editor: Here are other subjects discussed by Brick on the club BBS. Thanks to Brick for his permission to publish his comments \*)

RE: Power PC Chips.

....a CISC (Complex Instruction Set Computer) chip with RISC (Reduced Instruction Set Computer) features. Utilizing a Motorola 88000 architecture bus, superscalar pipelining, harvard architecture for internals. In other words, they are Motorola's answer to Intel's P5 or Pentium chip, ....should also compete rather well with the MIPS R4000, R4400 line of processors.

RE: A4000's and Macs with 030's

A club member asked, "What would C = gain by using the 68030 in the 4000? Is there that much difference in the price? I know that you can buy an Apple Mac with 4 megs and a 68030 cheaper than you can buy accelerator card for the 2000. Why is that? Seems as if we as Amiga users are being gouged the way Apple users were in the early years."

Brick replies» You can buy a Mac with a small monitor or a Mac with a munged operating system, a Mac that is already obsolete, a Mac that is horribly underpowered, a Mac with no math coprocessor, a Mac with no expansion, a computer with a bad operating system. etc. etc. etc. You really should know something about the Mac before you go touting its virtues.

Do you have any idea what a processor costs? Or what goes into manufacturing or R&D? 68030's cost \$25.00, 68040's cost \$250.00. You do the math. FYI you can buy a 68040 accelerator board for the Amiga for under 750.00. Amiga users getting gouged? Lets see, we have an operating system with seven years of R&D in it. Microsoft has about 2 years, Apple has more, but hey, haven't managed any significant improvements. We get a machine with 4 or more custom chips designed by the manufacturer, and seamlessly integrated into the operating system. We get real bus throughput, not some bottlenecked,



buzzword laden, sad excuse of an electrical connection that hasn't significantly improved since the days of the 4mhz XT. Or the sorry NuBus trilogy (they are on their third try) which still can't manage to pull off bus mastering properly. Hmm... lets see, we get real Device I/O. Last I checked I was able to hook up the latest state of the art hi performance Maxtor SCSI-II hard disk drive with < 8ms seek times and 6500 RPM spindle speeds, and guess what.... it worked. No drivers, no patches, I get 3.4 megs per second transfers from the drive. The latest article I read about EISA/LOCAL BUS/ISA/BUS JUNK machines is that if you want real performance, get an EISA machine so you can get as high as 600k per second sustained throughput, quick somebody hose me down, I'm excited. That would be the article on page 179 of the April 1993 Byte magazine, comparing VL-Bus to Eisa on a Micronics (fastest made motherboard) and an AMI (second fastest pc motherboard made). Read it yourself. \$1200.00 for a motherboard that can handle a whopping 600k/sec disk transfers? Please!

Lets take a look at the latest offerings from Apple, hmm... there is the Apple Centris 610. Nice machine, comes with an 040, no monitor or keyboard of course, cd-rom, memory, video ram expandable to 1 meg (wow), all for a list price of around 1895.00. Wait what's this in small print at the bottom of the spec sheet? .... hmmm, "The Centris 610 comes equipped with Motorola's latest MC68LC040. What's an LC 68040?? ....a 68040 with no fpu! That's right folks, you get a processor that is slower than an equivalent 68030/68882 combination! Yeah! Letssee, I can spend more money and go slower, I like it. Of course you can buy a Centris 650, but wait, it costs over \$1000.00 MORE to get it up and running!....hmm \$2895.00 for a Centris 650, or \$2795.00 for an Amiga 4000? Gee,I just can't make up my mind. I am going to leave off here, and let you draw your own conclusions.

Next subject:

When someone says they have a 16 bit BIOS, that means that the ROM chip can be addressed 16 bits wide. You can do this by splitting an 8 bit ROM into two smaller ROMs and placing them side by side to get 16 bit data access. This has absolutely nothing to do with the depth of the operating system. If the ROMs were written using 32 bit instructions, they might (MIGHT) execute faster.

RE: OS, 32 bits and what comprises a 32 bit system.

The architecture (physical) of the system has ABSOLUTELY NOTHING to do with the resolution (depth or width if you like) of the OS. A 32 bit OS can run on a one bit serial port cable if you want. Witness the 486SX chip, it is a 32 bit internal chip that can execute 32 bit code but only has a 16 bit bus. Or the 68000, for that matter, which is 32 bits internally and 24 bits externally with 16 bits of data space. (not all together accurate but close enough for this discussion).

RE: The next year will prove interesting in the computer market place.  
YEP.

RE: "I hope that C= is up to the task...." I hope the users are up to the task of doing what they have been doing for 7 years. Selling the best personal computer available in spite of the company that builds them.



THIS BEAUTIFUL PAINTING V





VAS DONE BY PAUL WEHNER

# REAL TIME COMPUTER VIDEO

by Brick Eksten

Here is a more thorough explanation of some of the technology I have been talking about lately. Specifically this article is about the DPS and DMI real time video boards, and what they really offer.

Lets start by talking about the most basic unit of any type of animation or film, the single image, or what is known as the frame. If you were to start up your paint package and draw a smiley face, you will have created a single frame of an animation. If you were to draw a frowning face, you would have another frame of animation, but one that doesn't make sense when placed next to the first one (the smiley frame), if you were to draw about 30 images in between the smiley picture and the frowning picture, with each frame looking a bit more like the last frame (the frowning picture) you will have created the basic parts of an animation. Of course they aren't doing much, they are just 30 or so different images laying around on your hard drive. Lets leave the faces alone for second.

Now lets talk a little bit about what an animation really is. An animation is made up of many single images displayed quickly in order to give the appearance of single animated image. This is the way film works, if you look at a strip of film, you will see many individual images that when displayed on a screen, appear to be one moving image. For the illusion to be convincing, the images have to be displayed fast enough that you cannot tell that one image has been removed and replaced by another one. The speed at which the images have to be displayed is called the 'frame rate'. Sometimes referred to as 'fps' or frames per second. In order to fool the eye, the images have to be shown at a high frame rate, usually around 30 fps (30 frames per second). There are many different standards for what is considered a usable frame rate, but for our purposes we will use 30 fps as our standard of comparison.

Now lets take our smiley faces, and imagine them being shown one after another very quickly, we would have an animation of our smiley face becoming a frowning face. A simple concept right? So all we have to do is come up with a program what will display our images, one after the other, very quickly. Lets go back to Dpaint, think about how long it takes to load a single image into Dpaint. A second, two seconds, a minute? Depends on your system. The problem is, in order to create a convincing animation you have to load 30 images a second. Pretty quick huh? The problem becomes pretty obvious. How can you possibly load the images that fast? Exactly how much data is that? Lets figure it out. If each image was lo-res and 32 colors, it would be 320 pixels wide by 200 pixels tall by 5 bitplanes deep (5 bitplanes is 32 colors). That would make it 320x200x5 bits of information, divided by 8 (there are 8 bits in every byte) makes 40,000 bytes of information for each image. You have to load 30 of those every second so you would have to load 30 times 40k bytes every second or 1,200,000 bytes every second!!! Hope you have a fast hard drive. A similar animation in hi-res, overscan, interlace would mean that you would have to load 768x484x4 or 185,000 bytes per image or over 5,000,000 bytes per second. Not likely.

Then how do they do animation? Is it some bizzare magic? Hardly... The trick is, that instead of showing each frame one after the other, you only show the first frame, and then show the difference between it and the next frame. In our example, we would show the entire first image of the smiley face, then we would show only the part of the image that had changed in the second frame, the background didn't move so there was no reason to load that, the eyes didn't move so we don't need to load them again, all we need to load is the part of the mouth that started to change. From then on we can load just the differences between the frames, so that we will have to move much less data.

This whole process works great and is the basis for future television systems. The problem is that when there is a lot of difference between one frame and the next, you have to load lots of data, which will slow down the process, and ruin the effect, that's why some animations appear jerky at times and smooth at others, or they play smoother on fast machines. You can see that this process will work fine for simple lo-res animations or hi-res animations with less colors, but it won't work for the

16,000,000 color animations you are used to seeing on television or films (like terminator 2). Even if only 10% of the image changed from one frame to the next, you would have to be able to move around 3 megabytes a second, if the whole image changes you will have to move around 33 megabytes a second of data, this of course doesn't account for the time it takes for the image to be displayed, etc.

This is where the new breed of real time video playback boards comes in. These boards are designed to load and display full video resolution images at 30 fps, so they need to move around 33 megabytes of data per second and display all those images. This isn't really possible with current technology hard drives, so companies like DMI (Digital Micronics Inc) and DPS (Digital Processing Systems) have come up with boards that use compression technology to squeeze the data down into smaller chunks, an image that did take over a meg of memory might be squeezed down to 100k bytes of memory. The boards can do varying levels of compression, ranging from 1:1 (no compression) to 90:1 so each image takes only 1/90th of its normal size, our one megabyte image becomes only 11k bytes in size, pretty impressive! There are trade offs though, the current crop of boards can only manage to do compression of about 5:1 to 20:1 in real time. Any more compression than that and the images cannot be uncompressed fast enough, or if they can, they have lost so much information that the image becomes unusable. Since the compression used is JPEG or a variation of JPEG, it is a lossy compression method, meaning that the more the information is compressed, the more data is lost. Compressing an image 10:1 will result in an image that is for the most part indistinguishable from the original, an image that was compressed at 90:1 would probably not be recognizable. The products:

There are many companies trying to come out with real time playback boards. The most notable ones are DMI with the Digital Editmaster, DPS with the Personal Animation Controller (PAC board), NewTek with its as yet unnamed non-linear editing board, and others. (Digital Creations is rumored to be heavy into it) Of the boards that are available, the DMI board and the DPS board really shine, even when compared against boards available for the IBM and the Macintosh. The best of the boards available for the Macintosh are the Media Suite Pro and the Digital Film board from SuperMac Technologies, but both of these boards are only VHS quality, are very expensive, and really aren't usable by professional animators. (They are too prohibitive in price to be used by amateur animators) The DPS and DMI boards are both D2 quality, (professional quality) boards that have many features not found on the boards on other platforms (like a low price).

There are differences between the two boards, DMI's board requires that you have a very fast hard disk (SCSI-II) and hard disk controller card like the unreleased Commodore 4091 controller, the current controllers available aren't nearly fast enough. The good part is that this drive is shared by the rest of your system, and you can store other things on it as well as animations.

The DPS board has a dedicated hard drive, which means that it can only be used for animations and single image storage. The good part is that the drive is cheaper and doesn't require you to purchase a second hard disk controller. The DMI setup can store as much as 13-20 minutes of video on a 1 gigabyte hard disk but there are technical difficulties that don't allow it to play back more than 5-8 minutes of video at a time, it should also be noted that the DMI board is a ZORRO III board, meaning that it will only work in the A3000 or A4000. The DPS board will only store 3-5 minutes of video on a 540 megabyte hard disk because they only use the fastest part of the disks in the hard disk for animation, the rest is used as a storage area for still images (somewhere between 4,000 and 10,000 still images, depending on image complexity, it makes a great place to stuff all your backgrounds and such). It should be noted that the DPS board will work in all amigas with a ZORRO II or better slot. (A2000,3000,4000) The DPS board is geared towards the guy that is doing 30 second to 1 minutes animations for a living, the guy that is doing commercials for Ford, or the local bar.

The DMI board is aimed at the person or company that is going to be needing the extra capacity such as for recording video in real time to hard disk (both boards can do this) and editing 5 - 20 minutes of video, or enough to do a half hour television show.

What does all this wonderful technology cost? That depends on the system you choose, but anywhere from \$3100.00 to over \$80,000.00. Fortunately for us, the two

Amiga systems cost between 3 and 4 thousand dollars. That may sound like a lot, but the alternative is to purchase a single frame compatible professional VTR (prospeak for VCR), which will cost in the neighborhood of \$5,000.00 to \$50,000.00. You also have to take into account that the average service life of a pro-VTR is probably around every 500-1500 hours of use. The average service life of a hard drive is around 200,000 hours of use. Also it only takes a few seconds to add a frame to an animation on any of the compression boards, it takes anywhere from 30 seconds to over a minute and a half to add a single frame of video to a VTR(to tape). The savings in time alone is worth the purchase price for an editing studio.

As time goes by, you will see the technology in these boards become more mainstream in their applications. It has already been decided that the television studios of tomorrow will be using similar compression techniques to broadcast higher resolution images than are possible on current cable systems. An example would be compressing 10 channels of High Definition Television (HDTV) on what is currently one channel worth of video bandwidth. Imagine having a box in your stereo cabinet that constantly store the last 30 minutes of television so you never miss anything said or shown. You will also be able to perfectly edit the commercials from a television broadcast! I can't wait!

DMI  
 Digital Editmaster \$2499.00  
 540 meg SCSI-II drive 1100.00  
 +Commodore 4091 300-400.00?

Inputs S-VHS, Composite (both built in)  
 Outputs S-VHS and Composite (SVHS 'Industrial' Quality)  
 Technology Jpeg compression of an RGB image.

Additional Features  
 Digital Bus for connection to the Vivid 24, rendering board.

Pros: Massive storage capacity as you can have as many as seven hard drives worth of frames.

Cons: Only S-VHS quality

DPS  
 PAC Personal Animation Controller \$1999.00  
 540 meg IDE drive 1100.00  
 (controller built into PAC board) 0.00

Inputs None, video available through Personal TBC-IV  
 OutPutS S-VHS, Composite, M2, BetaCam (D2 'Broadcast' quality)

Technology Jpeg compression of D2 (digital component signal)

Additional Features  
 Digital Bus for connection to Personal TBC-IV  
 Semi-standard device driver, allows frames to be stored by any program to the PAC: device which will automatically store the image as part of an animation or as a still image.

Pros: D2 'Broadcast Professional' quality output, inexpensive.

Cons: Currently only supports one hard drive.

SuperMac  
 Digital Film \$4995.00 includes 1 gig drive

Inputs S-VHS, Composite  
 Outputs S-VHS, Composite  
 Technology: Jpeg compression, uses Quicktime for recording and playback.

**Additional Features**  
Also supports sound.

**Pros:** Will record and playback stereo sound at up to 20khz (one half compact disc) sampling rates.

**Cons:** Terrible output, looks like a bad recording on EP from a consumer VCR.

**ImMIX**

ImMix \$ ??????? reported to be \$80,000.00  
Includes complete system, sound, monitors, edit controller, macintosh, etc.

**Inputs** 2 video, 4 stereo audio  
**Outputs** Industry standard Broadcast connections

**Technology** Proprietary Wavelet compression technology.

**Pros:** Completely integrated system, sound, timeline, video editing with real-time special effects.

**Cons:** Expensive.

That should cover it for now. Isn't technology great!

**Brick**

(\* From the Editor: the following are the original OVAUG BBS messages Brick posted which generated my request for additional illumination of this subject. They are presented as they were captured from the BBS \*)

Msg Base: AREA 11 - Technical Forum - Go Brick  
Msg No: 58. Fri 4-02-93 10:57  
From: Brick Eksten  
To: All  
Subject: A Rumor

A fact actually, but I don't know how much I can say.

DMI has major competition in the real time animation business. Another major company has shown a product that can compete on cost (\$1995 retail), and performance and may even have better resolution than DMI's EditMaster. It is a D2 sampling board capable of 4:2:2 sampling rates (basically D2), I think that roughly translates into 4 times subcarrier, 2 times chroma and 2 times luma sampling. Or in more day to day terms it does 4 times oversampling on subcarrier, and 2 times oversampling on luma (brightness), and chroma (color). The board can play back 30 frames a second at full D2 spec and the quality approaches Beta SP. (Beta SP has low resolution but high Signal to Noise Ratio, S-VHS/HI-8 have high resolution but a lower SN ratio, this board has better than S-VHS resolution and a SN approaching BETA SP) I don't want to say much more than that until tomorrow when I find out exactly what is and isn't public knowledge, lets just say that real time playback is here, its real, and its AWESOME!!!!!!

Msg Base: AREA 11 - Technical Forum - Go Brick  
Msg No: 60. Fri 4-02-93 19:51 (RECV'D)  
From: Brick Eksten  
To: Ed Hoffmann  
Subject: A Rumor ALSO SEE: 59, 61, 62.

The Rest of the story.

Turns out I can say anything I want as the ads come out in the trade magazines next week, or in the next couple of weeks. The company is DPS the people that make the personal TBC and the waveform/vectorscope boards. The board is working now

with only some software to be done (Isn't it always the software guys). I used one of the boards today, the output is outstanding. A small revision to an earlier spec is that they are using 4:2:2 encoding. The board can be described as a digital-component video board with adaptive DCT compression. What that means is that the board uses video in its discrete component parts and digitizes it that way, performing JPEG like compression on the input stream. Bottom line is that it can compress video quickly, and accurately. The board has broadcast quality components all over it. I also got a good look at Lightwave Pro also, very nice. What the folks at NewTek (what Allen Hastings has done) have done is give you an adaptive comb filter in software for the images that come out of LW Pro. Let me back up. LW pro is about 4 times faster than LW 2.0, the images look better, and it has had many powerful features added. The feature I played with today is the user definable anti-aliasing. This is the comb filter I spoke of. What's a comb filter you ask. Well, without going into a lot of video speak, a comb filter looks at the difference between one line of video and the next and smooths out any transitions between them, this gives an aliasing effect which will remove jaggies from images. An adaptive comb filter will look at more than two lines of video, and will process them all in some kind of smart fashion. A really smart filter will look for horizontal and diagonal lines, as well as looking at several fields of video to find optimal solutions, this is what LW has. So not only is the software faster, but you can render images in medium resolution and then use the anti-aliasing feature to make it look like it was rendered at high resolution.

Msg Base: AREA 11 - Technical Forum - Go Brick  
 Msg No: 75. Tue 4-06-93 23:40  
 From: Brick Eksten  
 To: All Subject: Latest Toaster Rumors

Hmmm, where to start with this one..

I talked to a certain long haired (not a reflection of himself, just a description of him in case you read some Amiga toaster magazines) friend of mine who is in intimate contact with NewTek who told me that someone in power at NT wants to release the 3.0 lightwave only with the '4000/3000' toaster (yes 4000 toaster) at first and release it later for the older toaster boards. When will this board be released? I/he had no idea, but NAB would be a good bet for a announcement/show. Also inside rumor has it that NT has a non-linear editing board in the works. Actually rumor has the board in the engineering lab for the last two years. there is a strong possibility of seeing that there also. other fun stuff, this same long haired hippie type (my favorite kind of hippie) says that the port of Real 3D to the Vivid 24 board is not looking good. He is very disappointed. That's it for now -Brick.

## EDITOR'S END

This month Commodore has announced "COMMODORE EXPRESS tm  
 SPRING SPECIALS!"

The deals include:

|                                           |                           |
|-------------------------------------------|---------------------------|
| New A2286 Bridgeboard for the A2000/A2500 | 80% off List Price        |
| Suggested Retail \$ 499.00                | Sale Price \$99.00 + S&H  |
| (While quantities last)                   |                           |
| New 1084S Monitor                         | 20% off List Price        |
| Suggested Retail \$388.00                 | Sale Price \$309.00 + S&H |
| New A501 RAM Expander                     | 50% off List Price        |
| Suggested Retail \$69.00                  | Sale Price \$34.99 + S&H  |
| New A570 CD ROM Drive                     | 65% off List Price        |
| > External drive for A500                 |                           |
| Suggested Retail \$659.00                 | Sale Price \$299.00 + S&H |
| CDTV                                      | 57% off List Price        |
| Suggested Retail \$699.99                 | Sale Price \$299.00 + S&H |

CD1500 for CDTV

> Keyboard, wired mouse, 1411 floppy drive, Appetizer bundle  
Suggested Retail \$777.00 Sale Price \$99.00 + S&H

Special Spring Bundles

> New 1084S monitor, Factory Reconditioned A500,  
New A501 Ram Expander

Suggested Retail \$656.00 Sale Price \$380.00 + S&H  
(While supplies last)

TO ORDER CALL: 1 800 448 9987

Effective through June 30, 1993

~~~~~  
Ed Hoffmann will host a True Beginner's SIG before the regular meeting this month. It will start at 6:30 PM in our regular meeting room.

Our meetings are involving and interesting. Perhaps the best part is seeing the work of the other members. We have a broad range of talented and intelligent people in our club. Come and share the experience!!

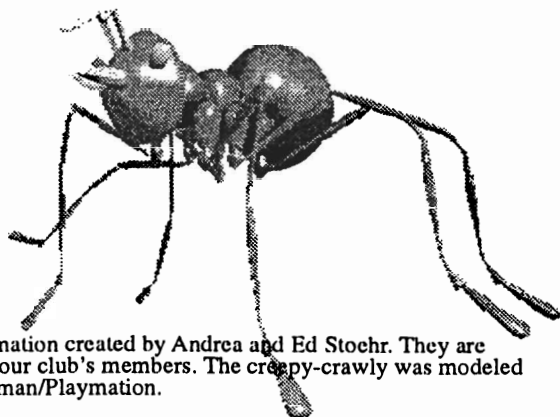
There will be a selection of professional software available at super low club prices available at the next meeting. It has been donated by a member, and sales will benefit the club's coffers.

The club has subscribed directly to Fred Fish for his famous Fish Collection. Consequently, copy prices for club disks and Fred Fish disks will be \$1.50 each plus blank disk. This direct support of Fred Fish will help encourage Fred to continue his valuable work for the Amiga community.

Jerry Pournelle in his famous "Chaos Manor" column for April praised the Amiga and Commodore with a "Big Orchid". The editor sent him a letter j thanking him for the praise.

Eugene Saylor again suggests that the club donate Amiga magazine subscriptions to libraries. The editor asked him to bring up the subject at the next meeting.

We will meet April 27, 1993. The place is room 502, Rieveschl Hall, UC. The time is 8:00 PM. Beginner's SIG is at 6:30 PM. It is always one of the most interesting evenings of the month.



MEET "ANDREA'S ANT"

This is a frame from an animation created by Andrea and Ed Stoeck. They are among the most creative of our club's members. The creepy-crawly was modeled and rendered using Journeyman/Playmation.

Ohio Valley Amiga Users Group
P.O. Box 428539
Cincinnati, Ohio 45242-8539

